



Thursday, March 12, 2020 | Metro Detroit

Welcome!

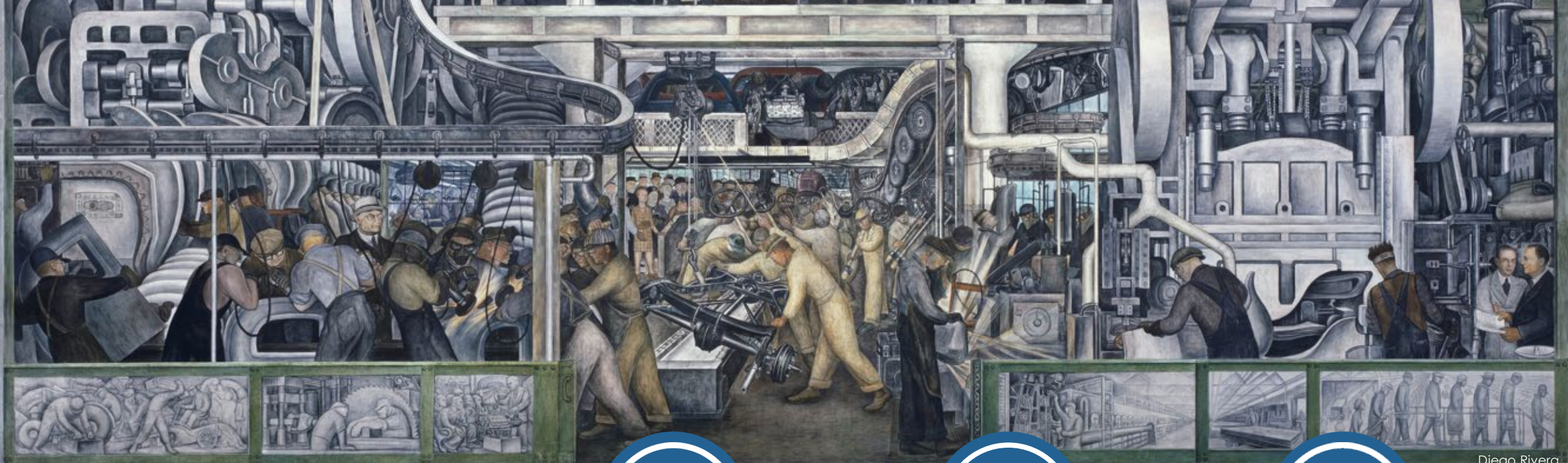
The presentation will begin shortly

If your badge was not scanned at the door, please use the self check-in feature in the session details in the Schedule.

A screenshot of a mobile application interface for a session. At the top, a dark grey header displays "Track 1", a calendar icon followed by "Thur March 12, 10:30am - 11:15am", and a location pin icon followed by "Salon C". Below this is a white panel with five icons: a bookmark icon labeled "Bookmark", a pencil icon labeled "Notes", a star icon labeled "Feedback", a blue checkmark in a circle labeled "Scanned", and a location pin icon labeled "Show Map". A black arrow points upwards to the "Scanned" icon. Below the white panel is a red button with white text that reads "Data & Analytics Use Cases". At the bottom, a light grey section titled "About" contains the text "This session reviews our in-progress corporate".

Hosted by:





Diego Rivera

Key Topics:



Data



Information



Knowledge

The New Crystal Ball:

What's Your Data Telling You?

Capturing data can be easy, highlighting the importance of capturing the right data.

Data with history can provide information of what has happened providing the opportunity for insight.

Data with context provides the opportunity to augment and potentially automate decisions.



Need Help Making Decisions?

Plex Systems Highlights

650+
customers

2307
facilities

23
countries

97%+
renewal rate

99.998%
up-time prior 12 months



100% Manufacturing
ERP, MES & IIoT



True multi-tenant
SaaS

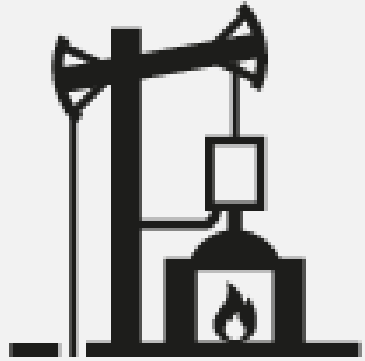
Growth Investment:



One code base,
one community

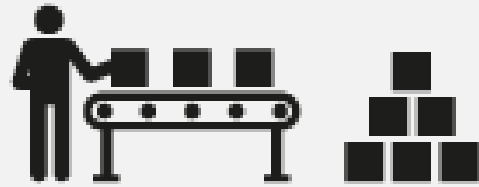


Happiest ERP
customers in history



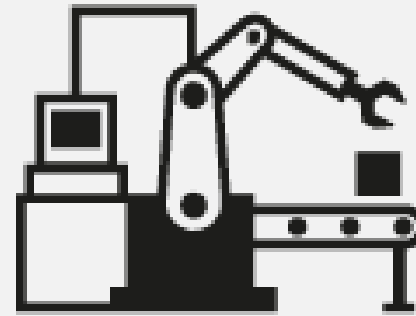
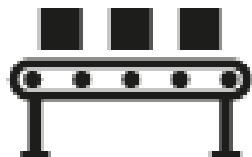
INDUSTRY 1.0

Mechanization, steam power, weaving loom



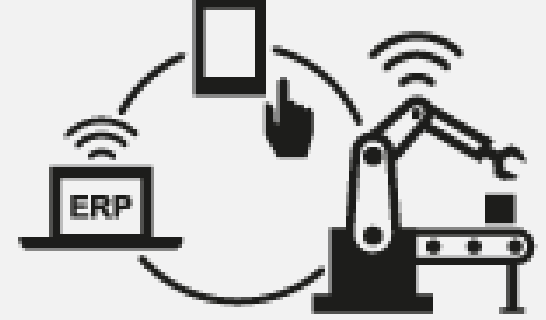
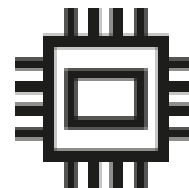
INDUSTRY 2.0

Mass production, assembly line, electrical energy



INDUSTRY 3.0

Automation, computers and electronics



INDUSTRY 4.0

Cyber Physical Systems, internet of things, networks





Technology is Advancing

at unprecedented rates.

Why?

(Most of this technology has been around for decades)



Industry 4.0



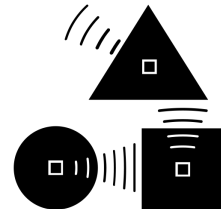
WIRELESS CONNECTIVITY

Data collection without infrastructure



CLOUD COMPUTING

Powerful processing with low cost



SENSORS AND MODULARITY

Affordable, durable, and tiny



INFORMATION STANDARDS

Data shared across multiple systems

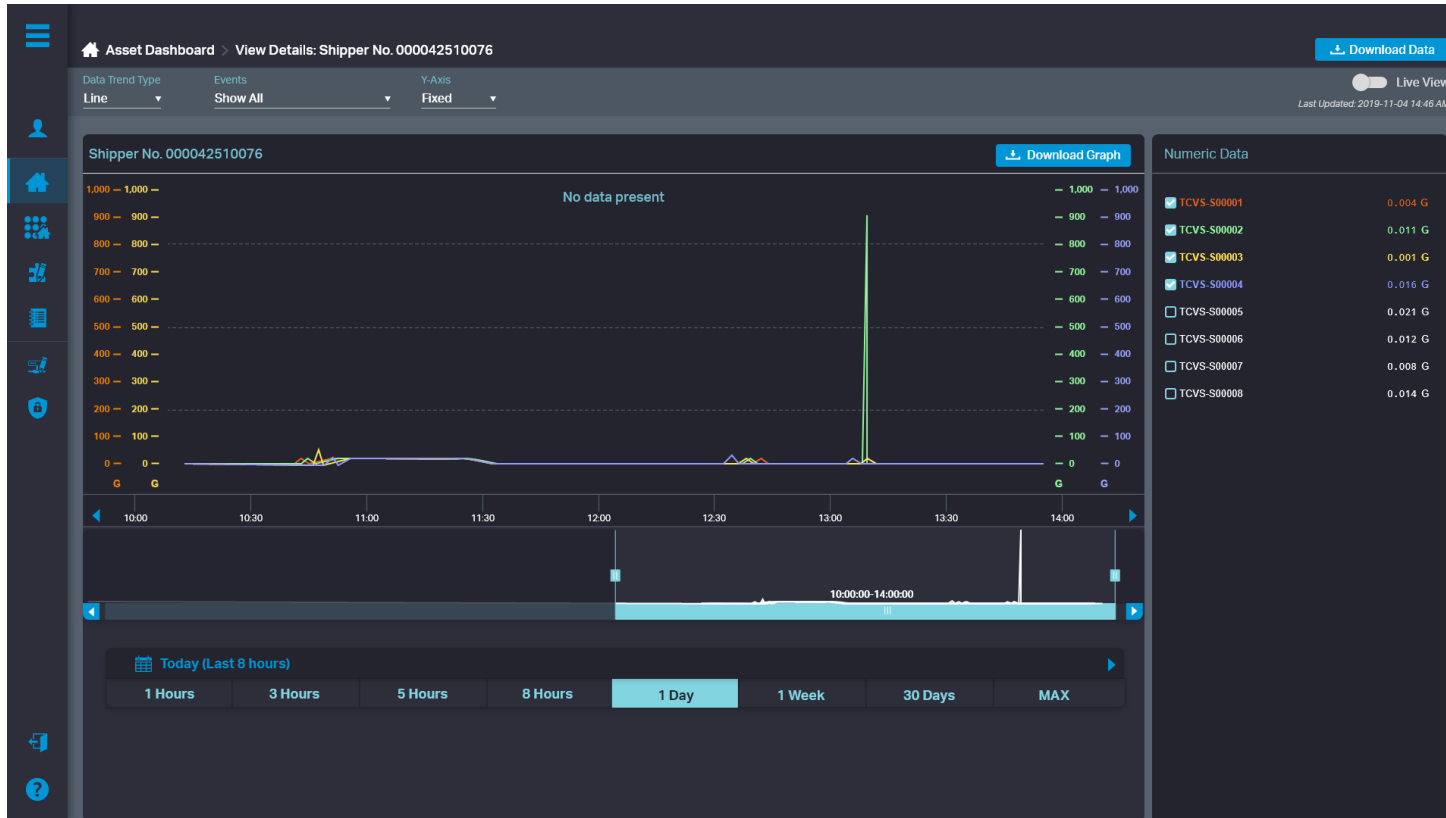
Data vs. Information

79%

68%

- 78%
- 63%
- 60%
- 62%
- 59%
- 71%
- 79%
- 65%
- 75%
- 72%
- 65%
- 73%

Information



Data over time provides Information

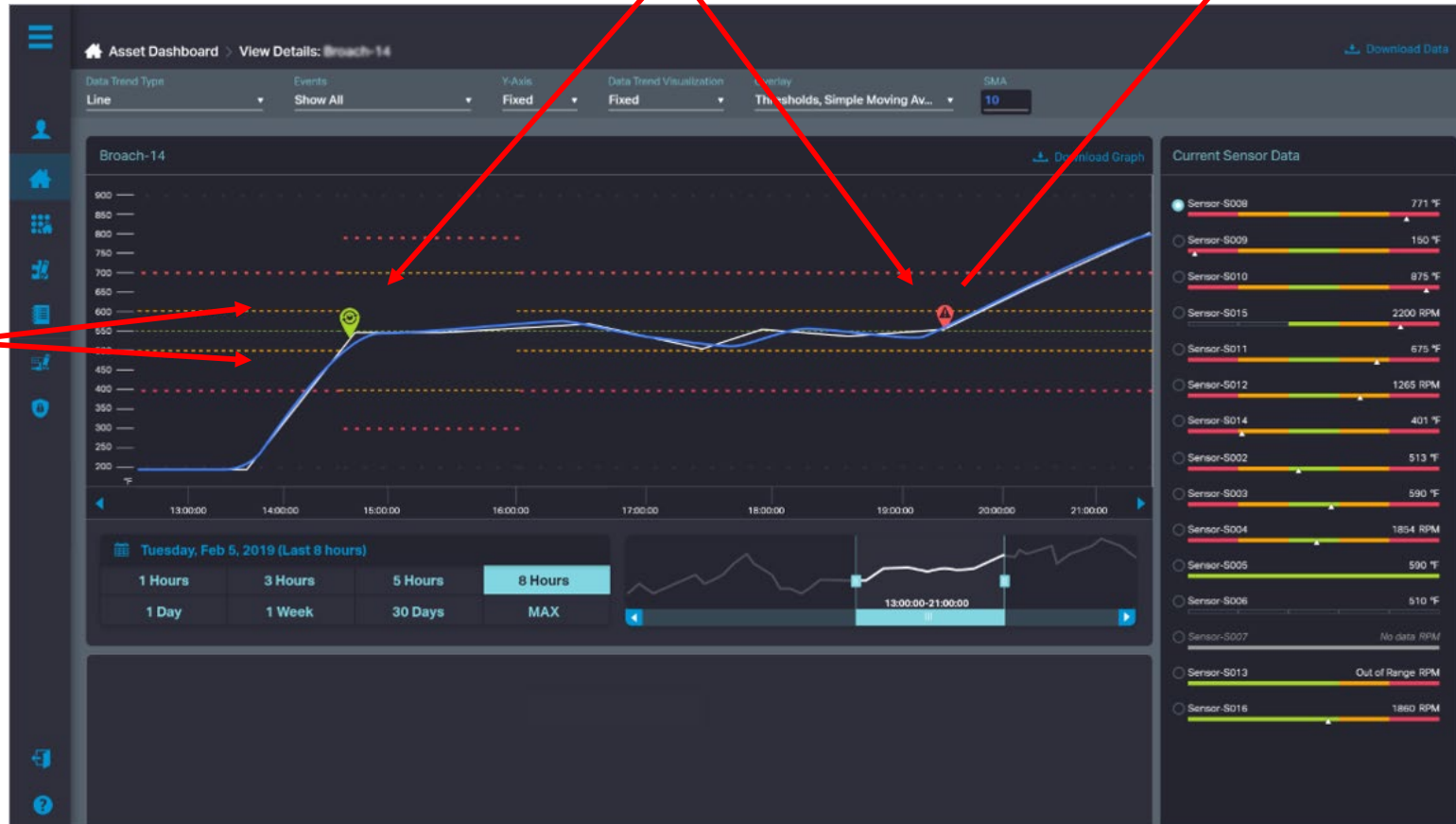
- What ?
- When ?
- Where ?

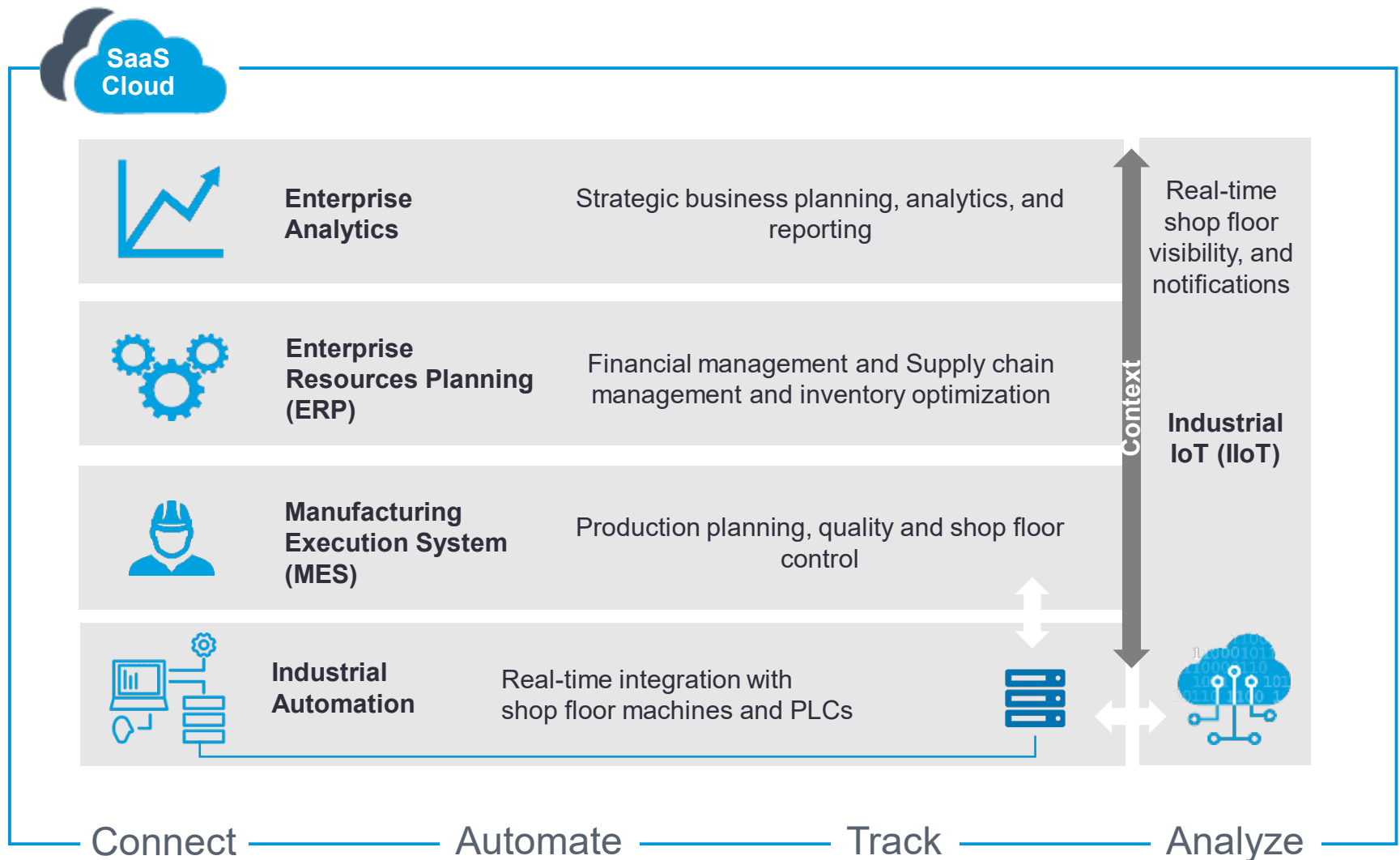
Information

Variable
Thresholds

Events

Alerts →





Data in Context Drives Knowledge



What is the Crystal Ball Telling us About Manufacturing?



- Put Data to work!
 - 40% of manufacturing workforce retiring in next 10 years
 - Machine learning through contextual insights
 - Trend and insights around process data surrounding the manufacturing process
 - Humidity
 - Quality
 - Imaging
 - Etc.
 - And more!

Value of Data for Manufacturers

Connected Assets

- Asset health monitoring
- Performance issue notifications
- Predictive maintenance

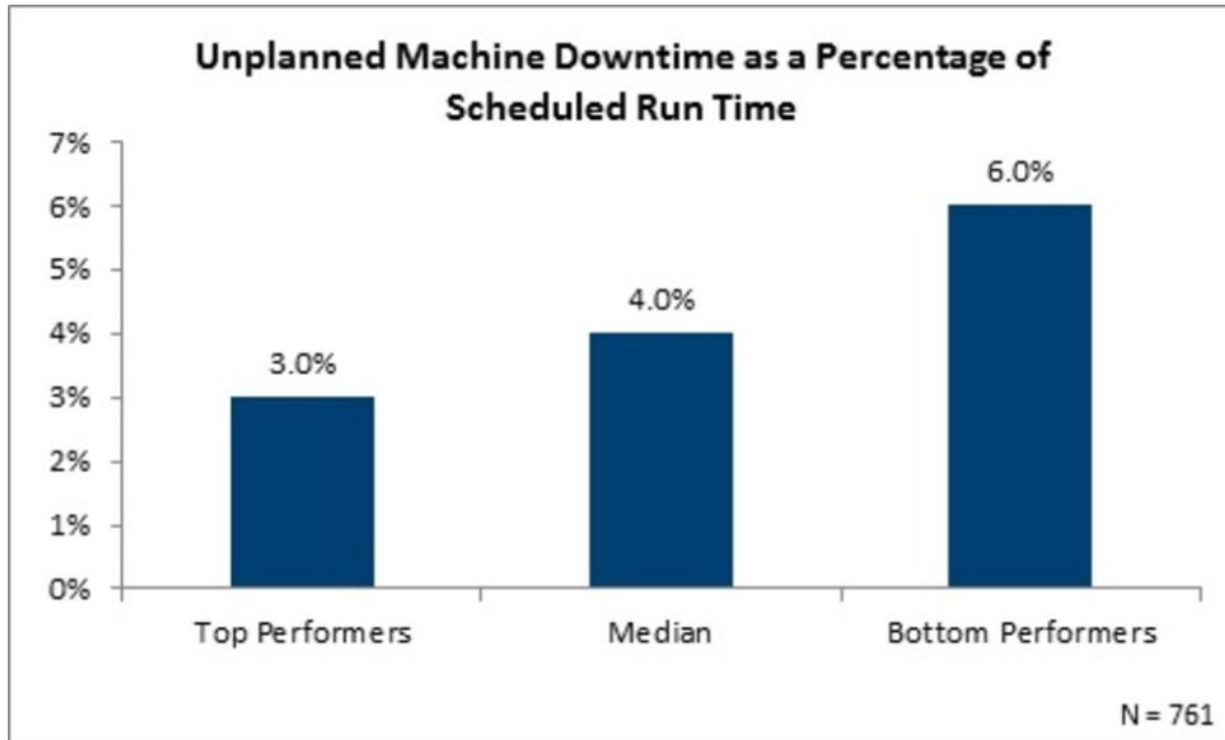
Connected Business

- Maintenance Monitoring
- Enhanced communication
- Early warning for disruptions



Why Asset Performance?

Unplanned Downtime Affects Everyone



Unplanned Machine Downtime as a Percentage of Scheduled Run Time
[APQC's Open Standards Benchmarking in Manufacturing](#),

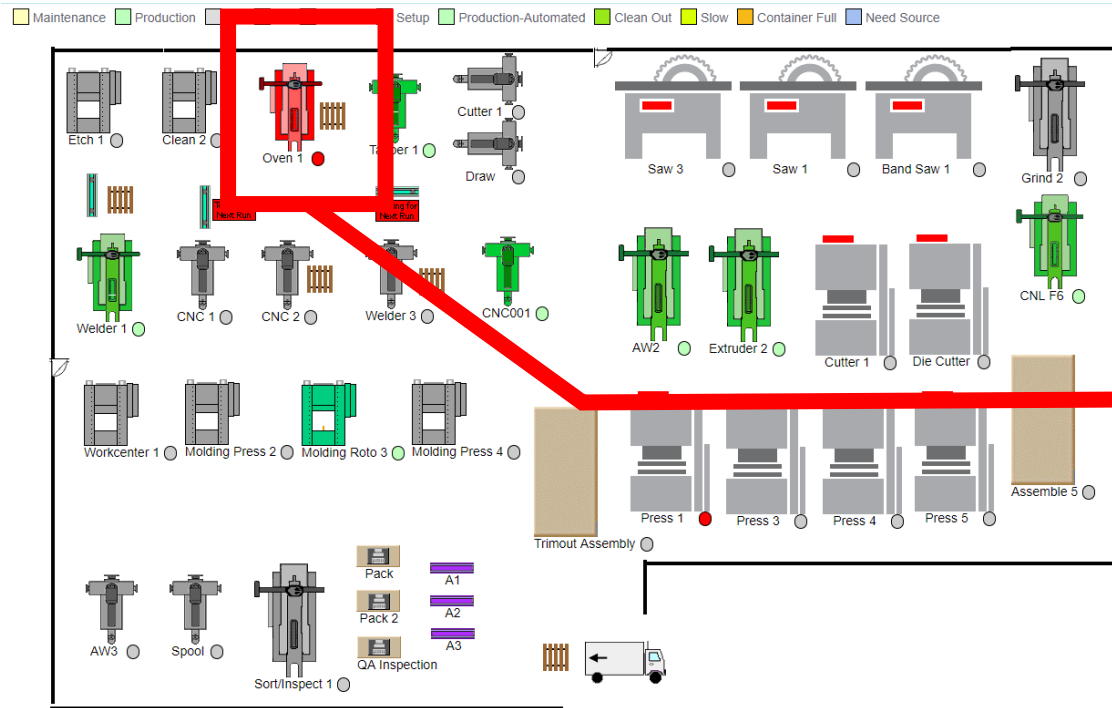
Challenge

- Reduce unplanned downtime to keep critical equipment running
- Early warning for equipment that is failing
- Understand why equipment failed

Solution

- Monitor what is happening regarding critical equipment performance
- Predict what will happen and send alerts
- Review historical data to learn what happened

Monitor Your Assets



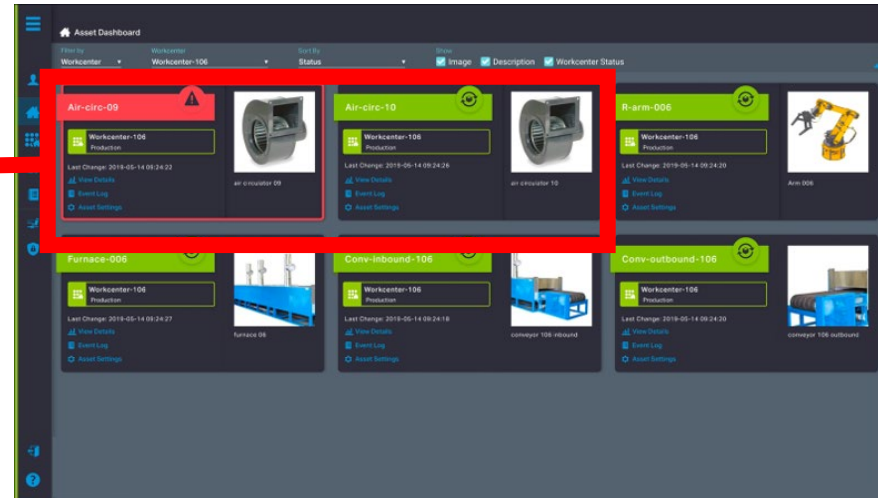
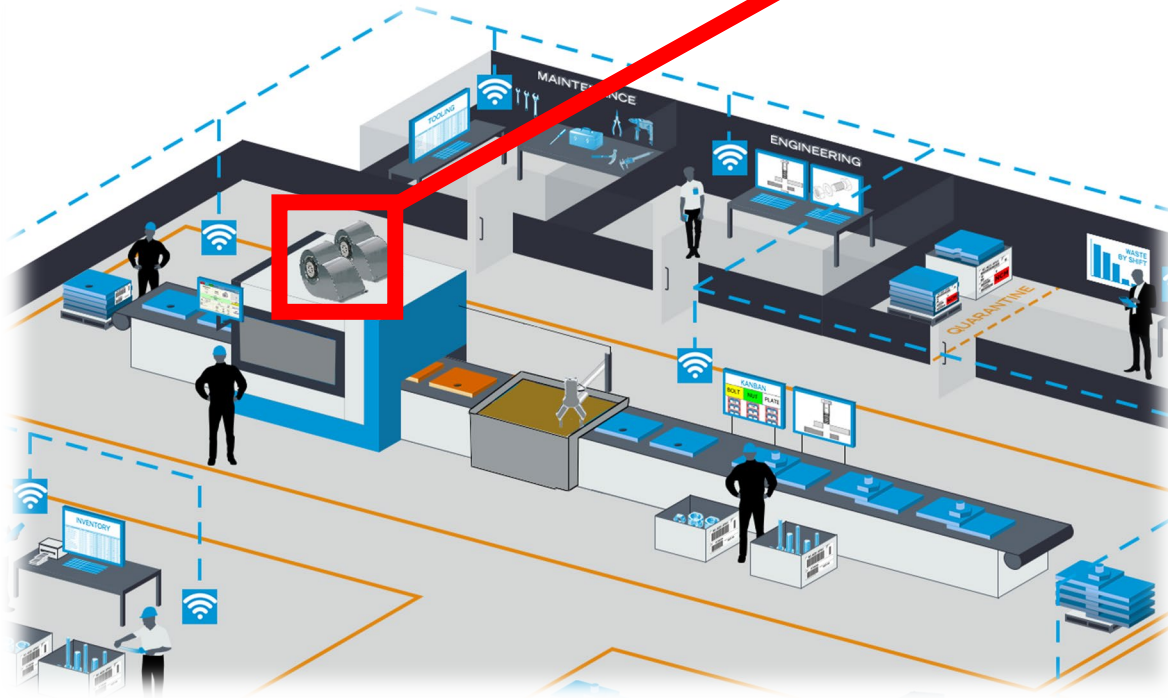
Group Dashboard

Group By: Workcenter | Select Workcenter: All | Sort By: Name | Show Plex Workcenter Details | Workcenter Status

| Workcenter | Status | Icons | Counts |
|----------------|----------------------|--|--------------------|
| Workcenter-101 | Production | Green circle | 8 |
| Workcenter-102 | Production | Green circle | 5 |
| Workcenter-103 | Auto-Production | Red triangle, Yellow exclamation mark, Grey question mark, Grey hourglass, Blue X, Blue wrench | 1, 5, 2, 1, 1, 999 |
| Workcenter-104 | Auto-Production | Green circle | 5 |
| Workcenter-105 | Production | Green circle, Grey hourglass | 12, 1 |
| Workcenter-106 | Production | Red triangle, Green circle | 1, 5 |
| Workcenter-107 | Down for Maintenance | Grey hourglass, Blue X | 1, 5 |
| Workcenter-108 | Production | Green circle | 10 |
| Workcenter-109 | Production | Green circle | 1 |
| Workcenter-110 | Production | Green circle | 1 |
| Workcenter-111 | Production | Green circle | 9 |
| Workcenter-112 | Production | Green circle | 11 |
| Workcenter-113 | Production | Green circle | 3 |
| Workcenter-114 | Production | Green circle | 9 |
| Workcenter-115 | Auto-Production | Green circle | 14 |

Drill Down to Understand If There is a Problem

- Machine Status: In Cycle, Idle, Problem, Off
- Any Boolean or Numeric Data Stream
- Event Log

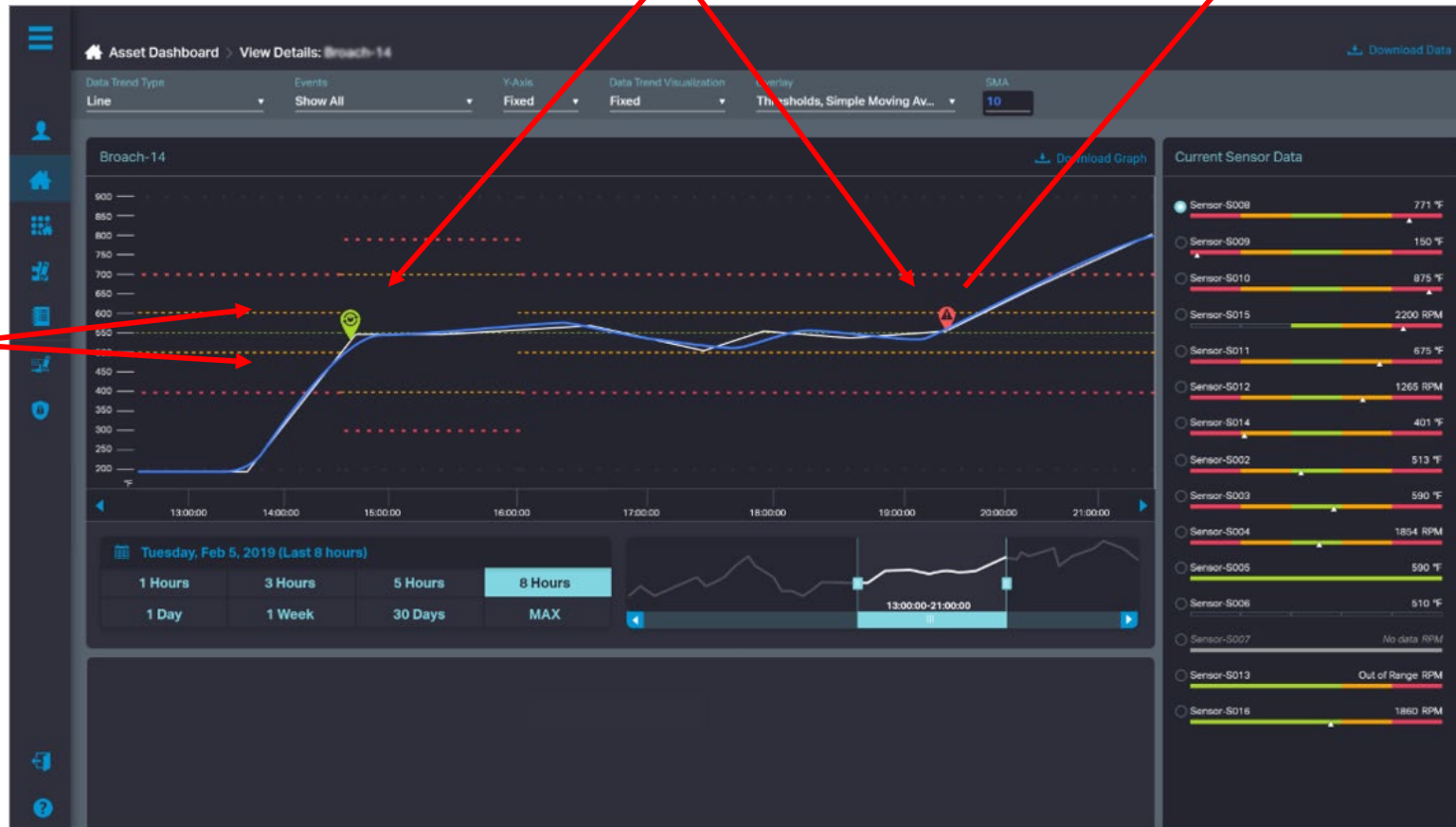


Notify Operator

Variable
Thresholds

Events

Alerts →



Value of Data for Manufacturers

Connected Assets

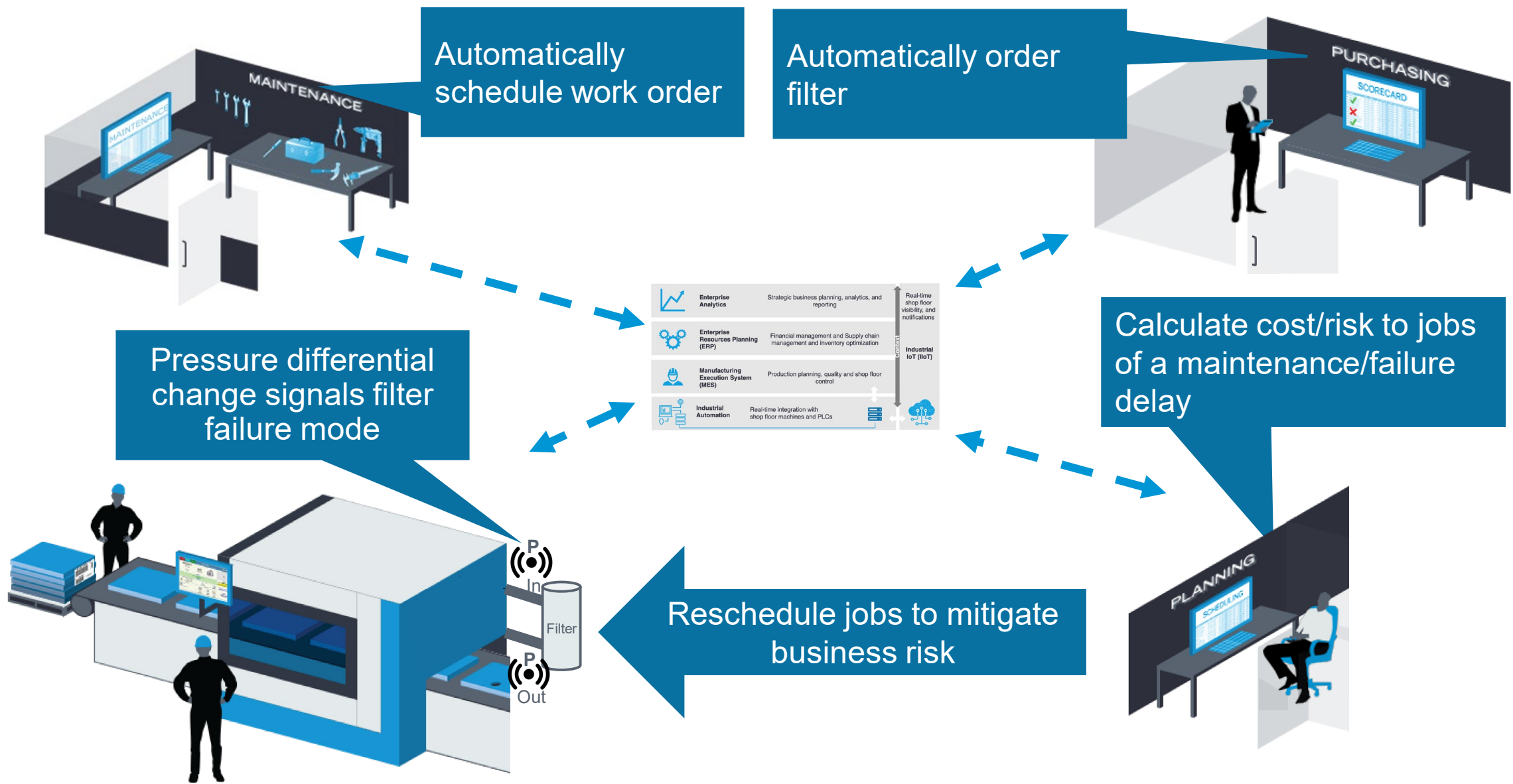
- Asset health monitoring
- Performance issue notifications
- Predictive maintenance

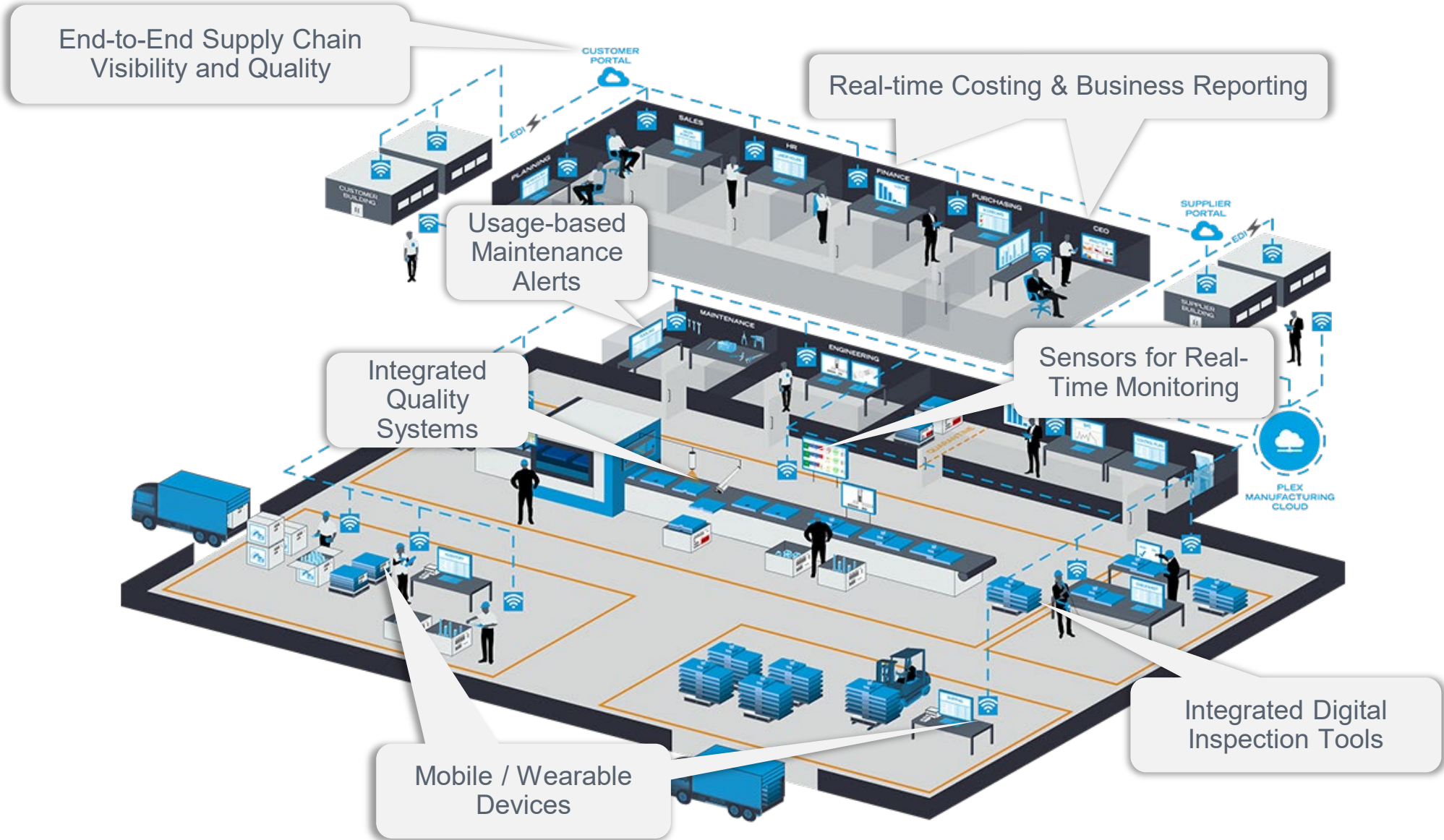


Connected Business

- Maintenance Monitoring
- Enhanced communication
- Early warning for disruptions







Crystal Ball of Data



- Single pane of glass
- Accessible
- Timely

Key Takeaways

- Data creation is not the challenge, creating the right data at the right time is important
- Technology is only part of the answer, leveraging technology to create data in context builds knowledge and value
- Practical use cases exist to leverage data that can augment and automate decisions

SUMMARY






PLEX







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We value your feedback!
Please rate your speaker in
the session details in the
Schedule.

Track 1

 Thur March 12, 10:30am - 11:15am

 Salon C

 Bookmark  Notes  Feedback

 Scanned  Show Map 

[Data & Analytics Use Cases](#)

About

This session reviews our in-progress corporate

Hosted by:

